

Saddle Camp Road Reroute Project

Environmental Assessment



USDA Forest Service
Lochsa – Powell Ranger District
Nez Perce-Clearwater National Forests
February 2016

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Environmental Assessment**

**Lochsa-Powell Ranger District
Nez Perce - Clearwater National Forests
Northern Region, USDA Forest Service**

February, 2016

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CHAPTER 1. PURPOSE OF AND NEED FOR ACTION

The Forest Service has prepared this Environmental Assessment in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. Chapter 1 identifies the purpose and need for action, the scope of the analysis, and the decisions to be made. Chapter 2 describes the action and no action alternative, and alternatives considered but eliminated from detailed analysis. Chapter 3 characterizes the affected environment and discloses the direct, indirect, and cumulative environmental impacts that would result from the alternatives.

Additional documentation, including more technical reports used in this analysis is available upon request at the Lochsa Ranger District Office in Kooskia, Idaho.

A. Introduction

The Lochsa Ranger District on the Nez Perce-Clearwater National Forests is proposing to reroute the entrance of the Saddle Camp Road, 107, at its junction with Highway 12. The project is located about 28 miles southwest of Powell, Idaho. The road reroute would involve removing the first approximately six hundred foot segment of the road to avoid crossing Indian Grave Creek and rebuilding the entrance just to the West of its existing location. The Saddle Camp Road Reroute Project area is located in T36N, R11E, Sections 21 and 22 in Idaho County. See attached maps in Appendix B. The design of this project has been completed in partnership with the Nez Perce Tribe Watershed Division.

B. Background

The Saddle Camp Road (107) extends for approximately 17 miles from the Lochsa River corridor to Gravey Creek in the Cayuse Creek drainage of the North Fork Clearwater River. This road is one of the main access roads to The Lolo Motorway (Forest Road 500), and to portions of both the Nez Perce (Nee-Me-Poo) and the Lewis and Clark National Historic Trails. The Saddle Camp Road is wholly within the Nez Perce-Clearwater National Forests' boundary.

C. Purpose and Need

The Forest Service would reroute the entryway of the Saddle Camp Road just to the west of its existing location to avoid crossing Indian Grave Creek and to create a safer access point from Highway 12. The proposed action would be implemented in 2016.

Purpose: The primary purpose for rerouting the entryway of the 107 Road is to reduce watershed and aquatic impacts at the existing undersized crossing on Indian Grave Creek. This crossing is a partial barrier to aquatic organism passage. Rerouting the road outside of the floodplain area would also reduce sediment input and in the long term decrease road maintenance expenses by reducing costly infrastructure.

Need: There is a need to address the undersized crossing and road runoff at the entryway of the Saddle Camp Road. Upgrading the stream crossing would require investing in a bridge structure, which would require additional expenses and maintenance needs. The opportunity exists to

reroute the entryway of the 107 road to avoid crossing Indian Grave Creek entirely, while maintaining current access. Forest road maintenance budgets and personnel are limited. Conditions at the lowermost 107 road crossing indicate a high risk of culvert failure and excessive erosion, thereby affecting water quality and aquatic habitat. Forest Service budgets for road maintenance have not kept pace with what it costs to maintain all roads. The trend of declining budgets is expected to continue. This project would reduce road maintenance needs and provide aquatic habitat benefits.

Purpose: Provide a safe road system.

Need: There is a need to meet Right of Way standards for Highway 12 access at the site. Currently, there is an unofficial access road from Highway 12 to a dispersed camping site located just to the west of the 107 junction with Highway 12. Under the proposal, access to the identified dispersed site would remain. The proposed reroute would make conditions safer because under the proposal there would only be one access point onto Highway 12 from the 107 Road, with the option to turn off from the newly located 107 Road to the dispersed site. Line-of-sight for vehicles turning onto Highway 12 is also better at the proposed 107 reroute location.

D. Proposed Action

The proposed action would:

- Construct a new entryway for the 107 Road just to the west of its existing location that would maintain all access needs currently provided by the road, including a safer turnoff to the dispersed site near Highway 12, and incorporating best management practices for runoff and erosion control. The new entryway would require about 325 feet of disturbance in an area that appears to have been used for machinery access, presumably logging activities, within recent history of Forest Service management. The gate and signage near the existing entry to Road 107 would be relocated to the new route.
- Fully recontour the first 600 feet of the existing 107 Road, including removal of the undersized crossing on Indian Grave Creek and rehabilitation of the stream channel to provide unrestricted aquatic organism passage. Excavation and hauling of the existing 107 roadbed materials to the Wendover Pit would occur to bring the surface to pre-road levels so as to facilitate forest recovery. Approximately 100 feet of the entryway of the existing dispersed site access road would also be decommissioned.

E. Desired Condition

The Saddle Camp Road is a main access road for The Lolo Motorway (Forest Road 500), and to portions of both the Nez Perce (Nee-Me-Poo) and the Lewis and Clark National Historic Trails. The desired condition is that this road would continue to provide access to these important areas, with minimal impact on Indian Grave Creek. The Clearwater National Forest Plan (CFP) standards for roads are to manage the transportation system in a manner that minimizes total public costs and maximizes utility of the systems and public safety. Additionally, CFP objectives are to implement a road management program that is responsive to resource protection needs, water quality goals, and public concerns.

F. Existing Condition

This tenth of a mile road segment contains the lowermost crossing of Road 107 on Indian Grave Creek where the existing structure is undersized for high flow events and is at risk of failure. A log weir has been placed below the culvert outlet to check the channel scour that has occurred as a result of the excessive energy the undersized culvert has created. Fish passage and aquatic organism movement is restricted at high flows by excessive velocities, while the log weir can be problematic for juvenile fishes at low flows. Additionally during heavy rain events sediment laden runoff has been observed directly delivering to the creek at the crossing, in spite of the existence of gravel surfacing and drainage ditch relief culverts.

The 107 road is maintained as an arterial and suitable for passenger cars, including 14 feet width with turnouts and gravel surfacing. Access is seasonally restricted from December until May 15, for protection of winter range wildlife habitat. The road is located entirely on public land, but the entry contains Right-of-Way for Highway 12. Just to the West of the 107 Road entry, on the other side of Indian Grave Creek, there is an unofficial road that provides access to a dispersed site from Highway 12. There are safety issues related to having 2 turnoffs from Highway 12 in such close proximity, which is also a violation of the Right-of-Way.

G. Public Involvement

On March 31, 2015 a scoping letter describing the proposed action, location and purpose and need were sent to 133 interested individuals, businesses, organizations and agencies including the Nez Perce Tribe and the Idaho Transportation Department. A legal notice and request for public comment also appeared in the Lewiston Tribune on April 3, 2015. Letters or messages received from six commenters were considered in the analysis.

H. Environmental Issues

Project issues were identified by the interdisciplinary team and through public scoping and are grouped into one of the following categories: 1) issues used to develop alternatives to the proposed action, 2) issues used to develop design criteria or 3) issues that are outside the scope, decided by law or policy, or not affected by the proposal. Indicators have been identified for each issue and are tracked through the analysis. Indicators are quantitative or qualitative measurements used to describe the affected environment, measure the environmental consequences, and compare the alternatives.

The proposed action was initially developed from preliminary issues, concerns, and existing conditions identified by the interdisciplinary team (IDT). The Nez Perce Tribe also provided input on the design and implementation of the project. Resource specialists and the District Ranger reviewed public comments and incorporated some of them as design features.

1. Issues Used to Develop Alternatives to the Proposed Action

The project may not be necessary. One commenter questioned the need for the project. This issue is addressed by the No Action Alternative.

There were no other issues raised by the public or internally that lead to the development of an

additional action alternative.

2. Issues Used to Develop Design Criteria and/or Mitigation

Properly functioning aquatic and riparian habitat. Indian Grave Creek is constricted at the lowermost crossing on the 107 Road, which has caused the channel to downcut. During high flow events fish passage is impeded at the site, and the presence of a log weir to control the scour also presents problems for juvenile fishes during low flows. Rerouting the road to avoid crossing Indian Grave Creek would allow aquatic organism passage at all flow levels. Additionally, decommissioning the first six hundred feet of the road would allow for riparian vegetation to reestablish and would disconnect the lower quarter mile of the 107 Road from the creek.

Issue Indicator: Number road stream crossings

Issue Indicator: Length of road within the riparian area

Access and Safety. One commenter suggested keeping access to the 107 Road open during construction activities and to analyze the safety of entering and exiting Highway 12 from the proposed reroute location. The Idaho Department of Transportation was involved in the reroute design process so that safe access to Highway 12, among other issues, was considered. Another commenter was concerned about access being lost to the dispersed site on the West side of Indian Grave Creek. No issue indicator was developed for these issues; however design features were included to address these concerns (described in Chapter 2).

3. Issues outside the scope, decided by law or policy, or not affected by the proposal.

The following issues will not be considered in detail. They have already been decided by law or policy, are outside the scope of the project or are not affected by the proposal.

Wild and Scenic River Designation – The project activities occur within the Lochsa Wild and Scenic River Corridor. An analysis of the potential for effects to the Wild and Scenic River within the project area was completed and the specialist determined the outstandingly remarkable values of the Lochsa River would be preserved, and that the project complies with the Wild and Scenic Rivers Act (see project record).

Threatened or Endangered species. Canada lynx, fall Chinook salmon, and the following plant species: Spalding's catchfly MacFarlane's four-o'clock and water howellia are listed as threatened under the Endangered Species Act. None of these species or their designated critical habitat occurs in the project area and none would be affected by the proposed activities (see project record).

Steelhead trout and bull trout are listed as threatened under ESA and are discussed in the effects analysis in Chapter 3 of this document.

Management Indicator Species (MIS)/ Sensitive Wildlife and Plant Species. The following MIS or sensitive wildlife and plant species and their habitat either do not occur in the analysis area or the project would not cumulatively affect the amount of available habitat on the Forests; therefore they will not be discussed further in this analysis (see

project record).

Nez Perce-Clearwater National Forest MIS: American marten, bald eagle, belted kingfisher, elk, fisher, gray wolf, moose, northern goshawk, pileated woodpecker, and white tailed deer.

Regional Foresters Sensitive Species (Nez Perce-Clearwater-Clearwater NF listings):
Animals - black-backed woodpecker, Coeur d'Alene salamander, flammulated owl, fringed myotis, harlequin duck, long-eared myotis, long-legged myotis, pygmy nuthatch, ringneck snake, Townsend's big-eared bat, Western toad, and wolverine,

Plants - maidenhair spleenwort, Payson's milkvetch, deerfern, crenulate moonwort, lance-leaved moonwort, slender moonwort, Mingan moonwort, mountain moonwort, northern moonwort, least moonwort, bug-on-a-stick, green bug-on-a-stick, broadfruit mariposa, Constance's bittercress, Buxbaum's sedge, bristle-stalked sedge, many headed sedge, Anderegg's cladonia, Pacific dogwood, clustered lady's slipper, dasynotus, Idaho douglasia, Giant helleborine, puzzling halimolobos, sticky goldenweed, light hookeria, salmon-flowered desert-parsley, chickweed monkeyflower, spacious monkeyflower, thin sepal monkeyflower, gold-back fern, sweet coltsfoot, licorice fern, naked-stem rhizomnium, Mendocino sphagnum, evergreen kittentail, Sierra wood-fern, short-style sticky tofieldia, Douglas clover, Plumed clover, and Idaho barren strawberry.

Climate Change. This issue is outside the scope of the project as the project is too small to affect climate change; however implementing the project would allow Indian Grave Creek and its riparian area to function and respond to climatic events with increased resilience.

Over the past 30 years, trends for the area show a warming of the climate with air temperatures increasing an average of 0.13°C and stream temperatures increasing an average of 0.01°C, per decade (Isaak et al., 2011, cited in EcoAdapt, 2014). Records show that minimum air temperatures are increasing slightly more than maximum temperatures. Warming is expected to continue and precipitation is forecast to be “more often in the form of rain rather than snow, decreasing seasonal snowpack and increasing flood risk” (EcoAdapt, 2014, p. 29). Additionally, summer low flow periods are expected to be more severe. Proposed project activities such as removing the stream crossing and decommissioning more road length within the riparian area would provide greater protection against anticipated changes in flow and water temperatures in Indian Grave Creek.

I. Scope of the Analysis

To determine the scope of this environmental analysis, the interdisciplinary team (IDT) applied the principles of the National Environmental Policy Act (40 CFR 1508.25). The IDT also considered temporal and spatial aspects of the proposed action. The scope of this assessment is limited to the specific management activities described in the proposed action. This proposal is

not a general management plan for the area, nor is it a programmatic environmental assessment. If the decision maker selects an action alternative, activities could begin in 2016.

J. Decision to Be Made

The Lochsa-Powell District Ranger is the deciding official for this proposal. The decisions to be made are:

- Whether or not to select an action or mix of actions to address conditions on the lower tenth of a mile of the Saddle Camp Road at the access with Highway 12. If implementation of the action alternative is deferred, no other decision is necessary.
- If an action is selected, what design features, management requirements and monitoring are needed for its implementation on the landscape?

CHAPTER 2. ALTERNATIVES

A. Alternative Development Process

This chapter describes and compares the alternatives considered during this analysis. Chapter 2 defines the issues and provides a clear basis for choice among options by the decision maker and the public (40 CFR 1502.14). The important difference between alternatives is based upon the driving issue that is emphasized in each. Alternatives were developed based upon Forest Plan objectives, National and Regional direction and policy, existing conditions and environmental issues.

B. Alternative 1. No Action

This alternative provides a baseline for comparison of environmental consequences of the proposed action to the existing condition and is a management option that could be selected by the Responsible Official. The results of taking no action would be the current condition as it changes over time due to natural forces.

Under the No Action alternative, no riparian or instream restoration would occur. Indian Grave Creek would continue to have a partial fish passage barrier within the first tenth of a mile, until culvert structure conditions deteriorated to present a greater safety concern for the use of the road. The lower quarter mile of the 107 Road would continue contributing sediment to the creek during heavy rainfall and spring snowmelt events. Also, the unofficial access road from Highway 12 to the dispersed site just to the west of the 107 entryway would continue to present a safety hazard. The No Action alternative does not meet the purpose and need to reduce watershed and aquatic impacts at the existing undersized crossing on Indian Grave Creek, nor does it improve safe access to Highway 12. This alternative would not help the Forests reduce maintenance costs.

C. Alternative 2. Proposed Action

Under this alternative, the Forest Service would meet the project purpose and need by implementing the following activities:

- Construct a new entryway for the 107 Road just to the west of its existing location that would maintain all access needs currently provided by the road, including a safer turnout to the dispersed site near Highway 12. The gate and signage near the existing entry to Road 107 would be relocated to the new route.
- Best management practices for runoff and erosion control would be applied to the new road, including placement of gravel, installation of new ditch relief culverts, and application of seeding, slash, and transplants on cut and fill slopes.
- Fully recontour the first 600 feet of the existing 107 Road, including removal of the undersized crossing on Indian Grave Creek and rehabilitation of the stream channel to provide unrestricted aquatic organism passage. Approximately 100 feet of the entryway of the existing dispersed site access road would also be decommissioned.
- In order to facilitate forest and riparian area recovery, road fill on the proposed decommission section of the 107 Road would be excavated and hauled to the Wendover Pit, and plant and soil materials from the new road construction would be stockpiled for

placement on the decommissioned surfaces.

D. Design Features and Mitigation Measures

The following project design features and mitigation measures have been developed to minimize specific resource effects. Best management practices (BMPs) would be applied to minimize streambank disturbance, and control erosion and pollutant delivery to Indian Grave Creek from new road construction, channel reconstruction, and road decommissioning.

The following design features and mitigation measures would be used during project implementation:

- Ground disturbing activities would be conducted during the dry season and would follow an approved 'Stormwater and Erosion Control Plan' to be submitted by the contractor.
- No large trees would be removed for the project that are currently providing shade, bank stability, or potential large wood to Indian Grave Creek.
- All new road construction to be outsloped away from Indian Grave Creek.
- Vegetation removed for new road construction is to be salvaged for clump planting both on decommissioned road segments and on the new road cut and fill slopes. New cut and fill slopes will be seeded.
- Topsoil and duff excavated for the new road construction will be stockpiled for placement on decommissioned road surfaces.
- Gravel on decommissioned road surfaces to be salvaged for use on the new road surface, and fill to be hauled off to the Wendover Pit.
- Clump planting will occur throughout the decommissioned road surface areas at a minimum of 12 clump plants per 1,000 linear feet. Additionally slash from new road construction and decommissioning will be placed at 40-60% surface coverage.
- The contractor would have fuel spill containment supplies onsite in the event of a fuel spill and their employees would be trained in the proper application and use of those materials.
- The instream work would be conducted between July 15 and August 15 to minimize impacts to steelhead trout and bull trout spawning and rearing.
- Dewatering would occur before any instream construction activities to minimize potential sediment delivery into Indian Grave Creek and would follow an approved 'Work area isolation and dewatering plan' to be submitted by the contractor.
- Electrofishing and fish salvage would occur prior to dewatering. Electrofishing activities would occur in accordance with ESA guidelines from NOAA and the State of Idaho Department of Fish and Game Scientific permit.

- Prior to slowly reintroducing water to the reconstructed channel, the substrate will be washed and dirty water will be pumped and discharged to the adjacent floodplain surface to minimize sediment movement into Indian Grave Creek.
- Any required permits for disturbance of water or wetlands would be obtained prior to initiating work (Army Corps of Engineers 404 permit, Idaho Department of Water Resources Stream Alteration Permit). Any additional mitigation measures identified in the permitting process would be incorporated into the project plans.
- A permit for the work within the Highway 12 Right of Way area would be acquired from the Idaho Transportation Department. Any additional mitigation measures identified in the permitting process would be incorporated into the project plans.
- During construction, all efforts will be made to reduce the amount of time that access to the 107 Road is restricted, if at all.

E. Alternatives Analyzed but Not Considered in Detail

The concerns brought up by the public or internally were used to develop the proposed action, were used to develop design features, or are addressed in the No Action Alternative. There were no other issues raised by the public or internally that lead to the development of an additional action alternative.

F. Alternative Comparison

This section presents a comparison of alternatives by the purpose and need identified in Chapter 1. The table below displays how well the alternatives respond to the purpose and need based on indicators established to measure the responsiveness.

Table 2-1: Alternative Comparison to Purpose and Need

Indicator	No Action	Alternative 2
<i>Purpose:</i> Reduce watershed and aquatic impacts at the existing undersized crossing on lower Indian Grave Creek; rerouting the road outside of the floodplain area to reduce chronic sediment delivery; and decrease road maintenance expenses.		
Length of road within the Riparian Habitat Conservation Area (RHCA)	685 feet	420 feet
Miles of stream with stable streambanks	0.4	0.8
Number of Stream Crossings	1	0
Cost to upgrade crossing to bridge	\$400,000 Plus annual maintenance costs ~\$300/year	Not Applicable
Cost to implement Proposed Action	Not Applicable	Up to \$250,000 Plus annual maintenance costs

		~\$100/year
<i>Purpose: Provide a safe road system.</i>		
Number of access points onto Highway 12	2	1

Each alternative has been evaluated for its effects on the identified resource issue indicator described in Chapter 1. The action alternative was formulated considering an array of internal and external issues, including effects to water quality, fisheries, soils, wildlife, plants, and cultural resources. The following table provides a comparison of the alternatives in relation to the issues described in Chapter 1.

Table 2-2. Alternative Comparison by Issue

Resource Issue ➤ Issue indicator	Alt. 1 No Action	Alt. 2 Proposed Action
<i>Aquatic Species and Habitat</i>		
Threatened Fish - Steelhead Trout and Bull Trout	None	Likely To Adversely Affect/Long-term Beneficial
Designated Critical Habitat - Steelhead Trout and Bull Trout	Continued chronic sediment addition into steelhead habitat	Not Likely to Adversely Affect/ Long-term Beneficial
Sensitive aquatic species- westslope cutthroat trout	None	May Impact Individuals/Long-term Beneficial
Aquatic Organism Passage	Partially Restricted	Unrestricted
<i>Effects to Other Resources</i>		
Sediment input to Indian Grave Creek from activities	None	Minor amounts and short term duration
Safe access to Highway 12	Violation of Right of Way Standards	Compliance with Right-of-Way Standards

G. Monitoring

Monitoring for noxious weeds on the decommissioned surfaces will occur post-implementation and any infestations will be treated accordingly.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

This chapter provides a summary of the affected environment and the environmental impacts of the alternatives considered in detail.

A. Aquatic/Wetland Resources

Contractors were hired to survey the Saddle Camp Road Reroute project area in 2015 in order to develop a proposed design for the area. Detailed topographic data and stream channel information were collected. Stream survey data from 1994 (Clearwater Biostudies, Inc.) was also used. The Zone Fish Biologist and Hydrologist field reviewed riparian/wetland habitat and general stream conditions in 2015. GIS and Google Earth maps, as well as contractor information were used to estimate existing and proposed project activity metrics.

Affected Environment

The project area is approximately 2.5 acres in size and includes less than 100 feet of lower Indian Grave Creek. The culvert proposed for removal is undersized for the width and volume of the stream and acts as a partial barrier to upstream fish movement. Almost all of the proposed decommissioning and new road construction activities occur within the mapped Riparian Habitat Conservation Area (RHCA) for the creek. The new entryway for the 107 Road would require about 325 feet of disturbance in an area that is currently forest floor; however, the area appears to have been used for machinery access, presumably logging activities, within recent history of Forest Service management.

Aquatic/Wetland Habitat: Indian Grave Creek is a steep channel with an average gradient of 9%. Habitats within the project treatment area are comprised of 80% riffles or runs and 8% pool habitats. The stream is dominated by rubble and boulders which provide limited rearing habitat and no spawning habitat. Cobble embeddedness levels are 37% which does not meet the desired condition of 30% or less. The stream has very stable streambanks due to the large rock component. Pools are low in quantity and quality primarily due to steep stream gradients. Woody debris in the treatment area is low. Limiting factors to quality fish habitat include steep gradients, large substrate size, and low numbers of pools. Riparian areas are dominated by mixed conifer trees (cedar, spruce, others) with an understory of willows and other mixed shrubs. The stream is well shaded by both vegetation and topography.

Endangered Species Act (ESA) Listed Species: There are three ESA listed fish species in the Clearwater River drainage (fall Chinook salmon, steelhead trout and bull trout), all of which are listed as threatened. Fall chinook are not known to occur in Indian Grave Creek. Steelhead trout and 2.3 miles of their designated critical habitat occur in Indian Grave Creek. Bull trout have not been observed but are suspected in Indian Grave Creek. The stream contains 4.7 miles of designated critical habitat for bull trout. Essential Fish Habitat (for salmon, also called EFH) is not known to occur in Indian Grave Creek due to the steepness of the stream which is typically unsuitable for salmon use.

Regional Foresters Aquatic Sensitive Species: Since the Clearwater Forest Plan was published in 1987, the Regional Forester has approved an updated sensitive species list for the Clearwater

National Forest (June, 2008). This list includes four fish species: westslope cutthroat trout, interior redband trout, Snake River spring chinook salmon, and Pacific lamprey. Current data shows that only westslope cutthroat trout occur in analysis area streams, and is therefore the only species that will be discussed.

Aquatic Species Occurrence: Cutthroat trout and steelhead prefer temperatures of 8-10°C for spawning (Pauley, et al., 1986) and 11-15°C for rearing (McMahon and Bear, 2006). Stream temperatures were recorded for 9 years out of 10 between 1998 and 2008. Indian Grave Creek met the State's cold water biota standard and the Clearwater National Forest desired conditions for steelhead and cutthroat trout. It did not meet the state standard for bull trout.

Fish surveys indicate very low densities of steelhead trout (2.4/100m²) and high densities of westslope cutthroat trout (11.8/100m²) in the lower 0.5 miles of stream including the project area. Steelhead trout occur in the lower 2.5 miles of the stream. The lack of spawning habitat is due to high gradient streams and is the primary limiting factor for steelhead trout production in the drainage. Westslope cutthroat trout are well distributed in good numbers throughout the drainage due to their ability to utilize small pockets of gravel in smaller sized streams.

Environmental Consequences

Alternative 1: No Action- Direct and Indirect Effects

There would be no direct effects to streams from the No Action alternative since no disturbance would occur in stream channels or streamside areas.

The indirect effects of leaving the current road and culvert in place could include small but chronic contributions of sediment into Indian Grave Creek at the stream crossing. The risk is considered to be low due to the almost flat nature of the road at the crossing. Additionally, the culvert could fail if it were plugged by large woody material; however, this risk is low due to the concrete facing on the culvert inlet. Sediment added as a result of the culvert failure would be relatively small due to the low amount of fill material both on top of and around the culvert.

Alternative 1: Cumulative Effects

There are no cumulative effects related to the No Action alternative since cumulative effects can only arise from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. There are no actions associated with this alternative. Estimating the likelihood, timing and/or extent of a landslide or culvert plugging event are difficult at best and therefore not included in this determination.

Alternative 2: Proposed Action- Direct and Indirect Effects

Instream activities during the culvert removal would introduce locally measurable amounts of sediment immediately downstream of the site. Sediment input would occur over a short time frame (1 day or less) and the amount potentially added to the stream is expected to be less than 20 pounds (0.01 tons) (Foltz et al. 2008). Increases in turbidity would be visible and are mostly associated with the disturbance of existing instream sediment. Very limited amounts of new sediment would be added to the stream due to design feature (BMP) implementation. The sediment and increased turbidity levels would settle out downstream; the distance is expected to be less than 600 feet due to working during the low flow season and also supported by past monitoring results. The disturbance may degrade substrate conditions, as fine sediments deposit

over existing gravels; however, due to the steep gradient of the area, the risk is considered low due to minimal amounts of gravel downstream.

There could be direct effects to ESA listed steelhead trout and sensitive westslope cutthroat trout from sediment delivery to the stream and subsequent increases in turbidity downstream of the work site. The effects would be short term (less than 1 day) and are considered minor in scale. The culvert removal would provide a long term direct benefit to all aquatic species by providing unrestricted access to historic habitats and the elimination of the risk of a future crossing failure.

The culvert removal would remove about 0.1 acres of riparian vegetation at the site. Removing primarily shrubs and small trees is unlikely to cause stream temperature increases, because the area affected is small. No measurable changes to stream temperatures are therefore expected because the area above and below the work site is well shaded by dense vegetation (shrubs/trees). The remaining vegetation would minimize changes in temperature.

There would be positive indirect effects to instream sediment since the stream crossing would be removed which leaves no mechanism for sediment delivery to the stream. Riparian areas between the new road segment and stream are well vegetated which minimizes the potential for sediment entering the stream. In addition, the new road would be graveled and would be outsloped away from the stream which also minimizes the chance for sediment delivery over the long term.

Decommissioning the 600 feet of existing road is not expected to contribute sediment to streams based on local monitoring of similar activities on the Clearwater National Forest. No sediment was observed entering streams from obliterated roads except in the areas where crossings were removed. Road decommissioning and storage methods utilized on the Forest are based on an established program (since the mid-1990s) that has undergone monitoring and feedback to incorporate currently utilized practices (refer to the 2009 Clearwater National Forest Annual Monitoring Report for an extensive summary of methods and monitoring results). Monitoring indicates that the Forest has been largely successful in reestablishing vegetation at restored road/stream crossing locations (USDA 2009). Additionally, a research study conducted within the Lochsa Basin found that within 10 years, recontoured roads were not significantly different from unroaded areas in terms of trees, shrub, forb cover and percent bare ground (Lloyd et al. 2010).

Aquatic Species Effects: Protecting aquatic habitats and riparian areas are consistent with the goals of the Endangered Species Act (ESA). The project would not measurably degrade aquatic habitats and would provide for long term unrestricted access to historic fish habitats. The project **“may affect”**, and is **“likely to adversely affect”** steelhead trout and bull trout because sediment would be added to the stream during culvert removals where steelhead are known to occur downstream. Bull trout may inhabit the area downstream of the project in Indian Grave Creek. Project design features would be implemented to reduce the risk of injury or harassment of these threatened fish species. The project **“may affect”**, but is **“not likely to adversely affect”** designated critical habitat for steelhead trout or bull trout due to the limited amount and temporary nature of the sediment added to the stream. The project complies with the Programmatic Biological Opinion for Restoration Activities at Stream Crossings on National Forests and Bureau of Land Management Public Lands in Idaho (2012).

The project would not likely contribute to the listing of cutthroat trout from a Regional Forester's Sensitive species to an ESA listed species due to the small amount and temporary nature of sediment added to the stream.

Cumulative Effects

The cumulative effects analysis area is the Indian Grave Creek drainage. The timeframe includes the year activities are completed plus an extra 2 years' time that it takes for vegetation on the decommissioned stream crossing to get well established where surface erosion is generally not occurring. Only those activities that have the potential to affect instream sediment in the last 2 years were considered. The only project considered in combination with the proposed action is the replacement of two culverts in 2014. Both were replaced in order to provide fish passage. One was 0.25 miles upstream from the proposed culvert removal site and the other was 2.1 miles above the site.

The cumulative effect of the proposed activities combined with the two past culvert replacements is the addition of about 60 pounds of sediment into Indian Grave Creek. This is minor and is an immeasurable cumulative effect to sediment given the large drainage area (7,000 acres), the steep gradient of the stream and the lack of gravel substrates below the crossing removal site that could provide spawning habitat for fish. The cumulative amount of sediment is not expected to affect rearing habitat for these same reasons. Detectable changes in cobble embeddedness are not expected due to the small amount of sediment added to the stream.

There would be a positive cumulative effect to both sediment and fish passage with the combined projects. The risk of culvert failure is greatly reduced and full access to historic fish habitats is provided in the Indian Grave Creek drainage. No further barriers to fish would occur in the drainage as a result of these projects.

CHAPTER 4. CONSULTATION/COORDINATION, AND REGULATORY COMPLIANCE

This chapter provides the list of required consultation and coordination efforts, and regulatory compliance related to the project.

Consultation and Coordination

The ID Team consulted numerous individuals for input, through either formal scoping or informal contacts with specific resource specialists. Scoping letters were sent to interested publics and organizations on the Nez Perce-Clearwater National Forests' and the Lochsa-Powell Ranger District's NEPA mailing lists located in the project file.

Tribal Consultation

On March 31, 2015 a scoping letter was sent to inform the Nez Perce Tribe of the upcoming analysis, and to solicit comments related to proposed activities. The Tribe's Watershed Division was involved in the design of this project.

Federal and State Consultation

Threatened, Endangered, or Sensitive Species: The U.S. Fish and Wildlife Service and NMFS updated species lists were reviewed and the following listed species were identified as potential concerns for the project: steelhead trout, bull trout, and Canada lynx all of which are listed as threatened. As discussed in Chapter 1, there would be no effect to lynx, therefore no consultation was required. Potential effects from the project to steelhead trout and their designated critical habitat as well as bull trout were identified. Consultation with the USFWS and National Marine Fisheries Service (NMFS) is occurring under the Programmatic Biological Opinion for Restoration Activities at Stream Crossings on National Forests and Bureau of Land Management Public Lands in Idaho (2012). The project *may affect, and is likely to adversely affect* steelhead trout and bull trout, but is *not likely to adversely affect* their designated critical habitat due to the limited amount and temporary nature of the sediment added to the stream. The application of BMPs would help to minimize effects to this species. Biological Assessments for listed species are located in the project file.

Clean Water Section 404 Permitting: The Forest would consult with the U.S. Army Corps of Engineers and Idaho Department of Water Resources, to obtain any necessary permits related to streams, wetlands, and floodplains prior to implementation.

National Historic Preservation Act: Investigations used for this analysis meet requirements of the National Historic Preservation Act and provisions of the Programmatic Agreement between the Idaho State Historic Preservation Office and Region 1 of the USDA Forest Service. The Cultural Resource Inventory Report was sent to Idaho SHPO for consultation comments in August 2015. The project is in compliance with Section 106 of the National Historic Preservation Act and consistent with state and federal archaeological statutes (Project Record, *Cultural Resources* Section). There would be no effects to cultural resources from project activities.

Regulatory Compliance

This analysis is tiered to the Final EIS and Record of Decision for the Clearwater Forest Plan, as amended (USDA-FS 1987) and the Clearwater National Forest Land and resource Management Plan (USDA-FS 1987). Forest Plan standards and how the Saddle Camp Road Reroute project addresses these standards are presented below.

Clearwater Forest Plan

The Forest Plan Management Areas (MA) within the project area include the recreational portion of the Middle Fork of the Clearwater Wild and Scenic River corridor (A7) and Riparian areas (M2). The primary goal within A7 is to protect and enhance scenic values, cultural values, water quality, big game, nongame, and fishery habitats with special emphasis on the anadromous fishery, and developed and dispersed recreation that will contribute to public use and enjoyment of the free flowing rivers and their immediate environment. The primary goal within M2 is protect and enhance riparian values (old growth, aquatic ecosystems, water quality, and fishery and wildlife habitats).

Water/Fisheries: Forest standards for water and fisheries resources are found in the Clearwater National Forest Plan on pages II-27 through II-29 and include:

- Apply best management practices to project activities to ensure water quality standards are met or exceeded.
- Manage all water in the Forest under appropriate Clearwater Forest Plan, Appendix K designated standards to maintain the physical and biological stability of streams on the Forest. The Forest Plan standard for Indian Grave Creek (mainstem) is high fishable for steelhead in a C channel.

PACFISH: The Forest Plan was amended in 1995, following a joint decision (commonly called PACFISH) by the U.S. Forest Service and Bureau of Land Management for managing anadromous fish-producing watersheds on Federal lands. The standards and guides from PACFISH would be applied to the project. Riparian Management Objectives (RMOs) for “forested streams” include the following stream habitat variables: bank stability, pool frequency (pools per mile), water temperature, large woody debris and width/depth ratio. The project has been designed to have a long-term benefit to these objectives in the Indian Grave Creek Riparian Habitat Conservation Area.

This project complies with the Forest Plan Management Area direction and will not retard the attainment of PACFISH RMOs. Bank stability, pool frequency, large woody debris and width to depth ratios would be improved at the stream crossing through the removal of the culvert. The stream and banks would be reconstructed at the crossing site to better match the unaltered stream reaches. Stream temperatures are not expected to increase due to overstory canopy retention.

The activities are consistent with the Clearwater National Forest Plan standards. They will maintain the fish habitat relative to the streams natural potential by allowing natural processes to occur and allow for full recovery over time (CNF, Appendix K, pg. K-3). Activities are also consistent with the Forest Plan Lawsuit Settlement Agreement as it will not contribute to measurable increases in sediment. The design features have been monitored and show very little sediment is contributed to streams during culvert removals and road decommissioning.

Federal and State Water Resources

All Federal and State laws and regulations applicable to water quality would be applied to this stream and riparian restoration project, including 36 CFR 219.27, the Clean Water Act, and Idaho State Water Quality Standards, Idaho Stream Channel Protection Act, and Best Management Practices (BMP's). In addition, laws and regulations require the maintenance of viable populations of aquatic species including the National Forest Management Act (36 CFR 219.19), subsequent Forest Service direction (Fish and Wildlife Policy, 9500-4) and Forest Service manual direction.

Clean Water Act: The Clean Water Act stipulates that states are to adopt water quality standards. Included in these standards are provisions for identifying beneficial uses, establishing the status of beneficial uses, setting water quality criteria, and establishing Best Management Practices (BMPs) to control non-point sources of pollution.

Section 313 of the Clean Water Act requires Federal agencies to comply with all Federal State, interstate, and local requirements, administrative authority, and process and sanctions with respect to control and abatement of water pollution.

Section 303(d) of the Clean Water Act stipulates that states must identify and prioritize water bodies that are water quality limited (i.e., water bodies that do not meet water quality standards). For waters identified on this list, states must develop a total maximum daily load (TMDL) for the pollutants, set at a level to achieve water quality standards. The Idaho Department of Environmental Quality prepared a Lochsa River subbasin assessment in 1999 and all listed stream segments at that time were recommended for delisting. No TMDLs were developed. Indian Grave Creek was found to be in full support of all beneficial uses; did not require TMDL development; and remains a Category 2 water on the most recent 303(d)/305(b) Integrated report (IDEQ, 2012).

Section 404 of the Clean Water Act requires permits to dredge or fill within waters of the United States. Activities that fill, remove, or modify wetland or stream habitat are proposed under the project and would require authorization under Section 404, through application of a site-specific permit.

Executive Orders 11988 and 11990 regarding Floodplain and Wetland Management: EO 11988 directs the Forest to “restore and preserve the natural and beneficial values served by floodplains”. The project will not modify or occupy floodplains to an extent greater than already exists. As such, there will be no adverse impacts to floodplains; thereby complying with EO 11988.

EO 11990 directs the Forest to “minimize the destruction, loss or degradation of wetlands”. Through road decommissioning, the project proposes to enhance and create additional wetland area. As such, the project complies with EO 11990.

The Idaho Stream Channel Protection Act: Regulates stream channel alterations between mean high water marks on perennial streams in Idaho. Instream activities on national forest lands must adhere to the rules pertaining to the Act (IDAPA 37.03.07). The rules are also incorporated as

BMPs in the Idaho Water Quality Standards. The project complies with the Act through sediment reduction activities and timing of the project during summer low flows.

Idaho State Water Quality Standards: Indian Grave Creek has been assessed by the Idaho Department of Environmental Quality (IDEQ Integrated Report, 2012). Indian Grave Creek is a 'Nondesignated Surface Water', where standards for cold water aquatic life and secondary contact recreation apply. IDEQ has determined that the stream meets its beneficial uses.

The project would cause short term, minor increases in sediment but long term improvements as disturbed streambanks and the riparian area stabilize with vegetation. The action alternative complies with the Clean Water Act and Idaho Department of Environmental Quality water quality standards.

Other Required Analysis

This is not a major Federal action. It would have limited context and intensity (40 CFR 1508.27), individually or cumulatively, to the biological, physical, social or economic components of the human environment. It would have no adverse effect upon public health or safety, consumers, civil rights, minority groups and women, prime farm land, rangeland and forestland, roadless areas, or to old growth forest options.

A. Effects of Alternatives on Prime Farm land, Rangeland, and Forest land

All alternatives are in keeping with the Secretary of Agriculture memorandum, 1827 for prime land. The analysis area does not contain any prime farm lands or range lands. "Prime" forest land does not apply to lands within the National Forest system. With both alternatives, National Forest lands would be managed with sensitivity to the effects on adjacent lands.

B. Energy Requirements of Alternatives

There are no unusual energy requirements for implementing any alternative.

C. Effects of Alternatives on Minorities and Women

There are no unusual differences among the effects of any alternative on American Indians, women, other minorities, or the civil rights of any American citizen.

D. Environmental Justice

In regard to Environmental Justice Order 12898, the health and environmental effects of the proposed activities would not disproportionately impact minority and low-income populations. There would be beneficial effect from the proposed activities on the treaty rights of the Nez Perce Tribe and local communities through improvement in fish habitat and potential increases in salmon and trout populations.

E. American Indian Treaty Rights

The Nez Perce-Clearwater National Forests lie completely within the original territory ceded to the US Government by the Nez Perce Tribe in their Treaty of 1855. In this Treaty, the Nez Perce Tribe explicitly retained the right of "...taking fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle..." on lands

now managed by the Nez Perce-Clearwater National Forests. In order for the Nez Perce Tribe to exercise Treaty-reserved rights to these resources, the Forests have a trust responsibility to protect and enhance these resources.

The proposed action alternatives would not conflict with any treaty provisions or guaranteed rights. The activities could potentially improve salmon and steelhead populations over time. These species are important to the Nez Perce Tribe.

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Appendix A: References

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Appendix B: Maps

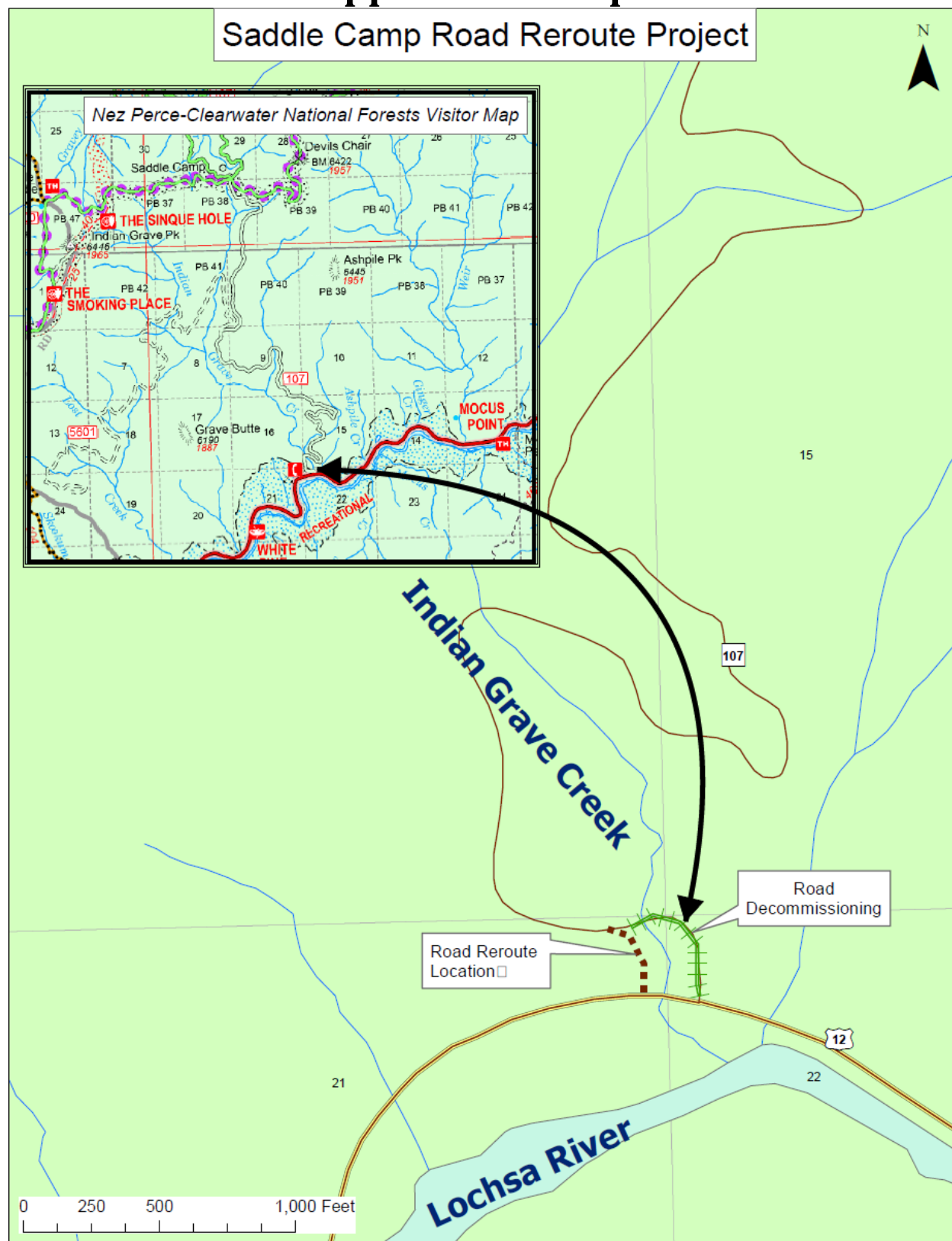


Figure 1. General Project Location for the Saddle Camp Road Reroute Project

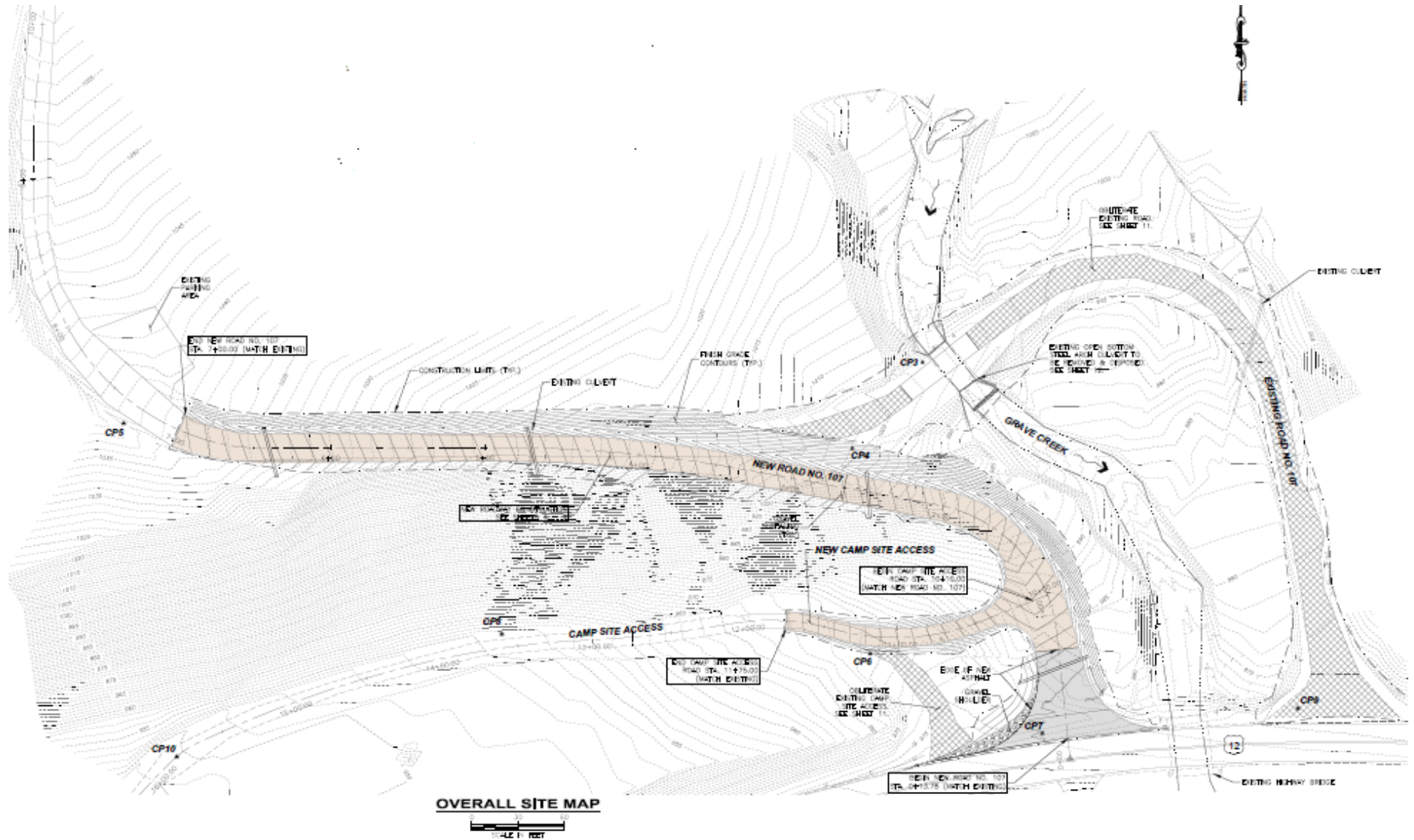


Figure 2. Engineering Plans for Road 107 Relocation and Decommissioning